# SELF-ASSESSMENT INVENTORY: WORKING WITH STRUGGLING STUDENTS

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| **Purpose** | Groups of teachers can use this self-assessment inventory to consider whether or not they are implementing all the practices that might help students who are struggling in mathematics. If teachers have questions about the items in the inventory, they can review the various media pieces below that address how to work with struggling students. |
| **Materials** | None |
| **Media** | *Developing a Mastery Framework,* multimedia overview. (8:41)<br><br>*Research-Based Instructional Programs,* video interview with expert Dr. Lynn Fuchs. (8:38)<br><br>*Interventions for Struggling Students,* audio interview with teacher from Claxton Middle School. (5:14) |
| **Topic** | National Math Panel: Critical Foundations for Algebra |
| **Practice** | Mastery Framework |

# Self-Assessment Inventory: Working with Struggling Students

This checklist is designed for Pre-K-8 teachers of mathematics to use to reflect on how they are currently supporting students who are struggling with learning mathematics and identify opportunities for providing additional support. If several teachers complete the inventory, it can also be used as a basis for a discussion and sharing about current practices.

| Classroom Instruction | |
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| 1. In each lesson I demonstrate to students how to solve problems. | Step-by-step modeling<br>Think-alouds (sharing how I address a problem)<br>Demonstrating more than one way to address a problem<br>Explicit directions and explanations |
| 2. I demonstrate multiple examples of similar problems. | Examples that are similar<br>Examples with slight variations<br>Alternating challenging problems with easier problems |
| 3. I use multiple representations in demonstrations. | Concrete materials<br>Representational materials<br>Story contexts<br>Visual diagrams<br>Virtual demonstrations (via computer)<br>Number line |
| **Instruction: What might you add to your instruction or do more frequently to provide clearer instruction to students who are struggling?** | |

| Student Practice | |
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| 1. I encourage students to think aloud while solving problems. | Explain work to teacher<br>Document steps taken in problem solving<br>Using drawing or models to represent thinking<br>Write about their work |
| 2. I provide many opportunities for practice. | Guided practice (students work a problem and approach is checked)<br>In-class independent practice (support available)<br>Worked examples are included for independent practice<br>Homework |

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| 3. I encourage students to explain their solutions to others. | Working with a partner<br>Working in cooperative groups<br>Demonstrating worked solutions to class |
| 4. I provide opportunities for students to develop fluency with arithmetic facts so that they can use working memory for more challenging aspects of problem solving | Drill and practice<br>Encouragement of fact learning<br>Use of technology-based tutorials for drill and practice |
| **Student Practice: How might you augment the practice opportunities you provide to struggling students?** | |

| **Formative Assessment** | |
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| 1. I use formal formative assessments at least weekly to assess whether students are grasping concepts and skills. | Quizzes<br>Unit tests or portions of unit tests<br>Software-based diagnostics |
| 2. I use informal formative assessments to track students' understanding in each lesson. | Checking work by having students do work at board or on white boards<br>Warm-up drills<br>Exit or summary check-in's<br>Observation and informal questioning |
| 3. I encourage self-assessment of whether students' are understanding concepts and skills. | Encouraging checking through estimation<br>Use of journals to record progress<br>Self-grading<br>Encouraging question asking |
| **Formative Assessment: Are there ways you can use formative assessment more effectively?** | |

| Feedback and Communications | |
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| 1. I provide feedback immediately to students about the accuracy of their approaches and responses, including identifying the steps in problem solving that are not correct. | Correct accuracy of responses<br>Review all completed work, including homework<br>Expect correct responses |
| 2. I acknowledge students' efforts and persistence. | Providing direct messages about effort expended "Grading" effort as well as accuracy<br>Report to parents on effort<br>Clearly stated expectations for students |
| 3. I provide students information about the expandability of ability through practice | Modeling of effort involved in solving challenging problems<br>Reminding students of when they have gained skill through effort<br>Information to parents about their messages on ability |
| **Feedback and Communications: How might you augment or modify the types of feedback you provide to students?** | |

| Interventions and Additional Practice | |
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| 1. I am available to students for additional instruction and practice. | Homework help<br>Before/after school/lunch time support |
| 2. I refer students for additional formal support. | Parallel course work<br>Tutoring |
| **Interventions and Additional Practice: What else could I do to provide additional interventions and practice for struggling students?** | |